

CLAIMS

I claim:

1. A transmitter for use in a remote signalling system, comprising:
  - a signal source;
  - an oscillator that puts a signal from the signal source into a transmittable form, the oscillator including a transistor having an emitter; and
  - an antenna that is coupled directly to the transistor emitter, the antenna transmitting the oscillator signal.
2. The transmitter of claim 1, wherein the antenna comprises a trace on a printed circuit board.
3. The transmitter of claim 1, wherein the oscillator comprises a Colpitts oscillator.
4. The transmitter of claim 3, including a first capacitive element in parallel with a resistive element both coupled between the emitter and ground.
5. The transmitter of claim 4, including a second capacitive element in series with the first capacitive element between the first capacitive element and the collector of the transistor and wherein the coupling between the antenna and the emitter is also coupled between the first and second capacitive elements.
6. The transmitter of claim 1, including a voltage source and an inductive element coupled to the collector of the transistor.

7. The transmitter of claim 1, wherein the antenna comprises at least a portion of a wheel.

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13. A vehicle component monitoring system, comprising:
- a controller supported on the vehicle that receives and interprets signals indicating a condition of at least one selected vehicle component; and
- a sensor device associated with the selected vehicle component that remotely transmits a signal to the controller, the sensor device including a signal source, an oscillator that puts a signal from the signal source into a transmittable form and includes a transistor having an emitter, and an antenna that is coupled directly to the transistor emitter.
14. The system of claim 13, wherein the antenna comprises a valve stem on a vehicle wheel.
15. The system of claim 14, wherein the antenna additionally comprises a rim of the vehicle wheel.
16. The system of claim 13, wherein the antenna comprises a wheel rim.
17. The system of claim 13, wherein the oscillator comprises a Colpitts oscillator.